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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/066,532	01/31/2002	Phillip A. Danner	14983/00078	6131

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EXAMINER

JONES, PRENELL P

ART UNIT	PAPER NUMBER
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2616

DATE MAILED: 04/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/066,532

Applicant(s)

DANNER ET AL.

Examiner

Prenell P. Jones

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 5-8, 10-12, 14-16, 20-24 and 26-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-3 and 5-7 is/are rejected.
- 7) ☐ Claim(s) 8, 10-12, 14-16, 20-24 and 26-28 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Response to Arguments

1. Applicant's arguments with respect to claims 1-3, 5-8, 10-12, 14-16, 20-24 and 26-28 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Raab (US Pat 5,751,967) et al in view of Hakim Scott (US Pat 6,760,748) and GarrettCom Europe Group (Non-Patent Literature) and Thompson (Non-Patent Literature).

Regarding claims 1-3 and 7, Raab (Abstract, col. 3, line 56 thru col. 4, line 60) discloses a networking system that implements inter-networking and whose architecture includes a switching network (Ethernet) wherein the Ethernet switch has a plurality of ports and coupled to a plurality of hubs or concentrators which are coupled to end-stations, end-to-end communication, Ethernet switch accommodates high-end VLAN applications and switch includes a plurality of plug-in modules. It is inherent that ports associated with communication devices function as interfaces, as well as contact locations (test probes are connected to ports) for testing communication device hardware and functions. Raab is silent on technical specification concerning Ethernet switching device, such as the operating temperature capable

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of operating above 55 °C and Ethernet switch configured to create a plurality of VLANs. In analogous art, Hakim discloses (Abstract, col. 12, line 28-67) a computer-based information technology infrastructure to meet the needs of industrial training centers wherein end-to-end communication is provided whereby the architecture includes an integration of wireless LANs, (col. 12, line 35-67) utilization of flexible industrial and educational computer system that includes desktop environment, (col. 41, line 50 thru col. 43, line 67) WLANs are utilized, WLANs (col. 36, line 65 thru col. 37, line 33, col. 41, line 50 thru col. 42, line 10) devices such as, Ethernet utilize portions of the radio spectrum (RF), utilization of IRWLAN, accommodating Ethernet ports or radio ports and (col. 32, line 3-51) virtual private networks are proprietary, use of virtual networks for providing adequate security for users, Ethernet devices, (col. 42, line 39-67) WLAN/Ethernet technical details reveal temperature range of -20 to 60 °C, and GarrettCom Europe Group discloses utilizing Ethernet switches/Industrial Ethernet switch in harsh environments such as industrial plant locations and military field wherein the Ethernet switch functions in a temperature environment of -40 and 70 degrees Celsius/uncontrolled environment, and Thompson discloses in a switching environment wherein in Ethernet switching is utilized in a radio network system where the users are Soldiers and Commanders (Military/tactical environment), and where the Ethernet switching creates and manages VLANs (page 38, left column, paragraph 2 thru right column, first paragraph). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to be motivated to implement an operating temperature approximately above 55 °C as taught in Hakim's computer based WLAN electronic classroom system with the teachings of Raab for the purpose of increasing system durability. Further, it would have been equally obvious to one of ordinary skill in the art at the time of the invention for one of ordinary skill in the art to be motivated to implement utilizing an Ethernet switch in an industrial environment which includes uncontrolled

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elements such as temperature as taught by the combined teachings of the GarrettCom Europe Group and Thompson who both utilize Ethernet switch in a military environment, with the combined teachings of Raab and Hakim for the purpose of further increasing system durability.

3. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Raab (US Pat 5,751,967) et al in view of Hakim Scott (US Pat 6,760,748) and GarrettCom Europe Group (Non-Patent Literature) and Thompson (Non-Patent Literature) as applied to claims 1-3 above, and further in view of that which is well known in the art.

Regarding claim 5, as indicated above, the combined art of Raab, Hakim, GarrettCom Europe Group and Thompson discloses an Ethernet switch creates and manages VLANs and with plug in modules and operational in a military/industrial environment. However, Raab, Hakim, GarrettCom Europe Group and Thompson are silent on an Ethernet switch configured to make some kind of audible sound indicating that a failure has occurred. Examiner takes official notice that it is well known to one of ordinary skill in the art at the time of the invention to be motivated to implement an audible alarm to indicate that a failure has occurred because of its noticeable impact. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to be motivated to implement an audible alarm to indicate a fault with the combined teachings of Raab, Hakim, GarrettCom Europe Group and Thompson's Ethernet communication systems, which are managed and monitored for the purpose of further managing and monitoring a system as to minimize down time in a communication environment with the use of a noticeable alarm indicator.

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5. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Raab (US Pat 5,751,967) et al in view of Hakim Scott (US Pat 6,760,748) and GarrettCom Europe Group (Non-Patent Literature) and Thompson (Non-Patent Literature) as applied to claims 1-3 and 5 above, and further in view of Compaq.

Regarding claim 6, as indicated above, the combined art of Raab, Hakim, GarrettCom Europe Group and Thompson discloses an Ethernet switch creates and manages VLANs and with plug in modules and operational in a military/industrial environment. Raab, Hakim, GarrettCom Europe Group and Thompson are silent on Ethernet device configured to be operable within a non-condensing humidity range between 10% and 95% and switch configured to operate at least at one Gigabit/second. In analogous art, Compaq discloses an (pages 1-2) Ethernet switch that supports high-end features, such as VLAN protocol, RMON and Spanning tree and (page 4) a storage environment whereby the humidity is 10% to 95% non-condensing and switch operating at one gigabit. Therefore, it would have been obvious to one of ordinary skill in the art to motivated to implement a humidity range between 10-95% which is taught by Compaq with the combined teachings of Raab, Hakim, GarrettCom Europe Group and Thompson to increase durability of a system.

Allowable Subject Matter

6. Claims 8,10-12,14-16,20-24 and 26-28 are allowed over prior.

The following is a statement of reasons for the indication of allowable subject matter: As indicated in the previous office action, claims 8,10-12,14-16,20-24 and 26-28 contain allowable subject matter.

Although the cited prior art discloses a networking system that implements inter-networking and whose architecture includes a switching network wherein the Ethernet switch has a plurality of ports and coupled to a plurality of hubs or concentrators which are coupled to end-stations, Ethernet switch accommodates high-end VLAN applications and switch includes a plurality of plug-in modules, utilization of flexible industrial and educational computer system that includes desktop environment, WLANs are utilized, WLANs devices such as, Ethernet utilize portions of the radio spectrum, utilization of IRWLAN, accommodating Ethernet ports or radio ports and virtual private networks are proprietary, use of virtual networks for providing adequate security for users, Ethernet devices, WLAN/Ethernet technical details reveal temperature range of -20 to 60 °C, and Ethernet switch that supports high-end features, such as VLAN protocol, RMON and Spanning tree and a storage environment whereby the humidity is 10% to 95% non-condensing and switch operating at one gigabit, they fail to teach or suggest with respect to claim 8 and 24, an Ethernet switch configured to maintain industrial devices in a VLAN separate from office device VLAN, production system comprises of at least two Ethernet switches coupling office device to industrial device.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Prenell P. Jones whose telephone number is 571-272-3180. The examiner can normally be reached on 9:00-5:30.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Prenell P. Jones 

April 24, 2006


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